

# MACHIDA LAB.

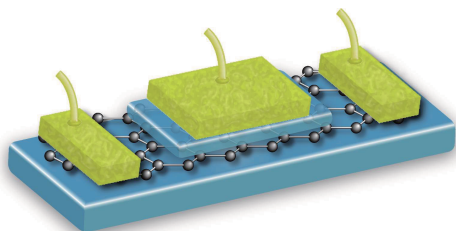
## [Science of Atomic Layer Materials]

Department of Fundamental Engineering

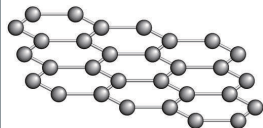
Quantum Transport in Low-dimensional Systems

Department of Materials Engineering

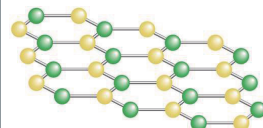
<http://qhe.iis.u-tokyo.ac.jp>



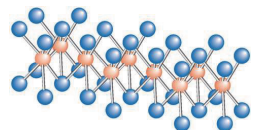
The graphene and other one atomic layer thick crystals reveal unusual quantum physics. By combining material science, nano-fabrication, and low temperature (10 mK) measurement, we explore the science and the engineering of graphene and two-dimensional crystals.



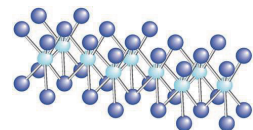
**Graphene**  
One atomic layer thick Dirac material



**h-BN**  
2D insulator



**MoS<sub>2</sub>**  
Monolayer semiconductor



**NbSe<sub>2</sub>**  
Superconductivity in one monolayer

